UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,267	03/18/2004	Paul E. Denney	LOMASR.026CP1	5395

20995 7590 08/09/2006

KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER	
EVANS, FANNIE L	

ART UNIT	PAPER NUMBER
2877	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/803,267	DENNEY ET AL.	
	Examiner	Art Unit	
	F. L. Evans	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *page 2 of action*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The Preliminary Amendment

Receipt is acknowledged of the preliminary amendment filed on April 26, 2004. The preliminary amendment has been placed of record in the file.

The Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The Information Disclosure Statements

The prior art cited in the information disclosure statements filed on May 20, 2004, December 23, 2004, March 17, 2005, April 4, 2005, October 31, 2005 and June 12, 2006 have been considered.

Claim Rejections - 35 USC § 101

35 U.S.C. § 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 16 is rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The invention set forth in method claim 16 does not result in the transformation of an article or physical object nor does the invention provide a practical application that produces a useful, concrete and tangible result. Merely analyzing (lines 5 and 6 of claim 16) would not appear to be sufficient to constitute a tangible result, since the outcome of the analyzing step has not been used in a disclosed practical application nor made available in such a manner that it's usefulness in a disclosed practical application can be realized. See, Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, 1300 OG 142, November 22, 2005. Attention is directed to section IV. of the guidelines, "DETERIMNE WHETHER THE CLAIMED INVENTION COMPLIES WITH THE

SUBJECT MATTER ELIGIBILITY OF 35 U.S.C. SEC. 101." In part b. "Practical Application That Produces a Useful, Concrete, and Tangible Result" under section IV, the third sentence states 'In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible, and concrete."'

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7 and 8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The lack of an antecedent for "the focusing lens" in line 1 of claims 7 and 8 renders these claims and any claim dependent therefrom indefinite. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15 and 16 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Satoru et al (JP 2002-296183), cited by applicant.

Satoru et al disclose detection system for use during irradiation of an interaction region of a structure with laser light (6), the structure comprising embedded material (reinforcement bars), the detection system comprising: means for collecting light emitted from the interaction region condenser

lens, etc. - paragraph [0014] ; means for separating the collected light into a spectrum of wavelengths (8); and means for analyzing at least a portion of the spectrum for indications of embedded material within the interaction region (12). The method of claim 16 is performed by the disclosed system of Satoru et al. Applicant's attention is directed to Satoru et al in its entirety with particular attention directed to paragraphs [0007], [0009] and [0014].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5 and 9-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Theriault et al (US 6,147,754), cited by applicant, in view of Davies (5,717,487).

Theriault et al disclose a detection system for use during irradiation of an interaction region of a structure with laser light (102, 104), the structure comprising embedded material, the detection system comprising: a collimating lens (214, lines 9-12 of column 5) positioned to receive light emitted from the interaction region; an optical fiber (106) optically coupled to the collimating lens (214) to receive light

from the collimating lens; and a spectrometer (114) optically coupled to the optical fiber to receive light from the optical fiber. Theriault et al fail to set forth the details of the spectrometer.

In lines 45-55 of column 1 and in the paragraph bridging columns 1 and 2, Davies sets forth the components basic to all spectrometers.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art that the claimed components of the spectrometer system were inherently part of the spectrometer of Theriault et al in view of the disclosure of Davies in columns 1 and 2. The dimensions of the entrance slit of the spectrometer would have been of matter of choice of the user so as to provide optimum operation of the detection system.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Theriault et al (US 6,147,754) in view of Davies (5,717,487) as applied to claims 1-5 and 9-14 above, and further in view of Jacobowitz et al (US 4,060,327), cited by applicant.

The above proposed detection system for use during irradiation of an interaction region of a structure with a laser beam has essentially every claimed structural feature except the neutral density filter adapted to reduce the light received by the spectrometer.

Jacobowitz et al disclose the use of a neutral density filter (24) to reduce the light received by a spectrometer (12).

At the time the invention was made it would have been obvious to use a neutral density filter to reduce the light received by the spectrometer (114) of Theriault et al because the use of such a filter would have prevented saturation of the detector of the spectrometer. Applicant's attention is directed to lines 49 and 50 of column 3 of Jacobowitz et al.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple

assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 15 and 16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11 and 12, respectively, of copending Application No. 10/691,444. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the copending application anticipate claims 15 and 16 of the present application.

With respect to claim 15 of the present application, claim 11 of copending application sets forth a detection system for use during irradiation of an interaction region of a structure with laser light (lines 1 and 2), the structure comprising embedded material (lines 2 and 3), the detection system comprising: means for collecting light emitted from the interaction region (lines 5 and 6); means for separating the collected light into a spectrum of wavelengths (lines 7 and 8); and means for analyzing at least a portion of the spectrum for indications of embedded material within the interaction region (lines 9 and 10).

With respect to claim 16 of the present application, claim 12 of the copending application sets forth a method of detecting embedded material within a laser-irradiated interaction region of a structure comprising the embedded material (lines 1-3), the method comprising: collecting light from the interaction region (lines 4-6); separating the collected light into a spectrum of wavelengths (line 7); and analyzing at least a portion of the spectrum for indications of the embedded material within the interaction

region (lines 8 and 9).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Fax/Telephone Numbers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner whose telephone number is (571) 272-2414.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

F. L. EVANS
PRIMARY EXAMINER
ART UNIT 2877

fle
August 6, 2006